

CONFIDENTIAL PREDECISIONAL DOCUMENT

HRS SCREENING MEMO

SUBMITTED TO: EPA Region 9
PREPARED BY: E & E START
DATE: April 22, 1998
SITE: Stauffer Chemical Company
1200 and 1415 South 47th Street
Richmond, CA 94804
EPA ID NUMBER: CAD 009123456

The U.S. Environmental Protection Agency (EPA) tasked Ecology and Environment, Inc.'s (E & E's) Superfund Technical Assessment and Response Team (START) to evaluate the overall data quality for this site to assist in determining if the data are adequate for preparing an Hazard Ranking System (HRS) Documentation Record for including the site on the National Priorities List (NPL). The attached matrix identifies how deficiencies in data quality may affect the overall site score.

HRS Factor Screening: Each scenario in the matrix is based on the potential that a particular HRS factor may not be adequately supported by documentation. The matrix identifies the various permutations of these factors. None of the permutations presented in the matrix or the following bullets cause a change in the Surface Water Pathway score that was presented in the Site Inspection (SI) scoresheet packet (i.e., 100).

- **Observed Release and Sources** — Some of the analytical data that are presented in the SI scoresheet packet are qualified (J'd). However, even if some or all of the J'd data are determined to be unusable for HRS purposes, there are sufficient non-J'd data to document the observed release to the tidal marsh and the presence of hazardous substances in the sources.
- **Persistence** — In the SI scoresheet packet, the persistence value that was assigned to mercury from the Superfund Chemical Data Matrix (SCDM) is incorrect. According to HRS Table 4-10, coastal tidal waters and oceans are included in the river, rather than lake, category. The SCDM persistence value assigned to mercury for the Stauffer Chemical Company site should, therefore, be a river persistence value of 0.4 rather than a lake persistence value of 1. This revision, however, does not change the Waste Characteristics factor category value of 1,000 for either the Human Food Chain or Environmental Threats.

- **Food Chain Individual and Level II Concentrations** — A revision of the Food Chain Individual factor value from 45 to 20 and the Level II Concentrations value from 3 to 0 may be appropriate, if adequate documentation cannot be obtained to provide evidence that at least some portion of the tidal marsh fishery is within the boundaries of the observed release. In the SI, it is stated that the marsh is a fishery, but no details are given on the location of the fishery in relation to the sampling locations that define the release. This revision changes the Food Chain Targets factor category value from 48.0031 to 20.0031, but it does not change the Surface Water Pathway score of 100.
- **Environmental Threat Level II Concentrations** — A revision of the Environmental Threat Level II Concentrations value from 725 to as low as 75 may be appropriate, if adequate documentation cannot be obtained to support the presence of all the sensitive environments that were assigned Level II Concentrations in the SI scoresheet packet. The dropping out of even several of the sensitive environments will not, however, change the Surface Water Pathway score of 100.

Most Likely Scenario: Scenarios #2 and #3 are the most likely scenarios. The analytical data from the 1992 SI sampling event is in the file, and the usable data can be identified from that package. The information for assigning the correct persistence value to mercury can also be easily obtained, from the Superfund Chemical Data Matrix (SCDM). Whether or not Scenarios #4 and #5 are implemented will depend on what documentation is available to support the presence of a fishery within the boundaries of the observed release, as well as determine which sensitive environments are within the boundaries of the observed release. Whether or not any of the scenarios are implemented, the Surface Water Pathway score of 100 remains unaffected.

Other Pathways: The Soil Exposure Pathway was also quantified for the Stauffer Chemical Company SI scoresheet packet. The data quality for the Soil Exposure Pathway was not evaluated for this HRS Screening Memo because the Surface Water Pathway drives the overall site score. As presented in the SI scoresheet packet, the site score is 50 when only the Surface Water Pathway is considered. When both the Surface Water Pathway and Soil Exposure Pathway are considered, the site score is 59.29.

HRS Screening Analysis

Stauffer Chemical Company
1200 and 1415 South 47th Street
Richmond, Contra Costa County, CA
CAD 009123456

Factor/ Scenario	Likelihood of Release	Waste Character- istics	Targets	Surface Water Pathway Score	HRS Site Score
1. As scored by URS for the SI (12/3/92)	550	DW Threat: 1.0E4x1.0E4 100 HFC Threat: 5.0E8x1.0E4 1,000 Env. Threat: 5.0E8x1.0E4 1,000	DW Threat: 5 HFCThreat : 48.0031 Env.Threat: 725	(5,156.68) 100	50
2. Some of the analytical data that are presented in the SI scoresheet packet are J'd. However, even if some or all of these J'd data are determined to be unusable for HRS purposes, there are sufficient non-J'd data to document the observed release to the tidal marsh and the presence of hazardous substances in the sources.	Same as #1	Same as #1	Same as #1	Same as #1	Same as #1
3. Revised persistence value from SCDM for mercury. Should be value for rivers (0.4) not lakes (1.0). See HRS Table 4-10. Coastal tidal waters and oceans are included in the rivers category.	Same as #1	DW Threat: 1.0E4x1.0E4 100 HFC Threat: 2.0E8x1.0E4 1,000 Env. Threat: 2.0E8x1.0E4 1,000	Same as #1	Same as #1	Same as #1
4. Possible revision of Food Chain Individual from 45 to 20 and Food Chain Level II Concentrations from 3 to 0 because it is not clear from the SI documentation whether any portion of the tidal marsh fishery is within the boundaries of the observed release.	Same as #1	Same as #1 or #3	DW Threat: Same as #1 HFCThreat : 20.0031 Env.Threat: Same as #1	(4,970.01) 100	Same as #1
5. Possible revision of Environmental Level II Concentrations from 725 to <725 because there may not be sufficient documentation to support the presence of 0.5 mile wetlands, 10 endangered/threatened species, and a coastal zone within the boundaries of the observed release. There is definitely documentation to support the presence of some of these sensitive environments. One sensitive environment yields 75 from HRS Table 4-23.	Same as #1	Same as #1 or #3	Same as #1 Same as #4	(823.35) 100 (636.68) 100	Same as #1